DOCUMENT RESUME

ED 196 191 EC 131 318

AUTHOR Suelzle, Marijean; Keenan, Vincent
TITLE Technical Report on a Research Strategy for Investigating the Service Needs of Developmentally Disabled Children.
INSTITUTION Northwestern Univ., Evanston, Ill. Center for Urban Affairs.
SPONS AGENCY Illinois State Dept. of Mental Health and Developmental Disabilities, Springfield.
PUB DATE 80
GRANT 843-02
NOTE 53p.: Some print is small and will not reproduce well. For related information, see EC 131 316-317.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Community Services; Delivery Systems; *Developmental Disabilities; Needs Assessment; *Parent Attitudes; Research Methodology

ABSTRACT

The paper reports on a strategy for investigating parental choice of services for developmentally disabled children in geographical areas with complex populations and delivery systems. The study is based on a prototype conducted in an Illinois county including urban, suburban, and rural populations. The prototype is described: a mail survey questionnaire of all consenting parents in the county and an analysis of community services support networks; next a strategy is developed for a more complex service using Cook County (including Chicago) as a case study exemplar. (Author/CL)

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TECHNICAL REPORT ON A RESEARCH STRATEGY FOR INVESTIGATING THE SERVICE NEEDS OF DEVELOPMENTALLY DISABLED CHILDREN

by

MARIJEAN SUELZLE, Ph.D., and VINCENT KEENAN

Sponsored by:

Department of Sociology and
Center for Urban Affairs
Northwestern University
2040 Sheridan Road
Evanston, Illinois 60201

and

Extramural Research and Grants Development Program
Illinois Department of Mental Health and
Developmental Disabilities

(Grant #843-02)

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Northwestern University
Evanston, Illinois 60201

EC131318

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TABLE OF CONTENTS

	Page
ABSTRACT	1
INTRODUCTION	1
I. Collection of Quantitative Sample Survey Research Data in Lake County, Illinois	2
II. Development of Handbook for Lake County Parents and Professionals	6
III. Sampling Considerations for Conducting Research with Complex Populations and Delivery Systems.	8
IV. Strategy for Collection of Quantitative Sample Survey Research Data with a Complex Population (Cook County, Illinois).	10
Service Areas for the City of Chicago: 1st Stage	10
Community Areas for the City of Chicago: 2nd Stage	15
Incidence of Placement in Special Education for the City of Chicago: 3rd Stage	19
3rd Stage, Step 1: Public and Private School Enrollments	22
3rd Stage, Step 2: Special Education Enrollments	31
Classroom Enrollments for the City of Chicago: 4th Stage	31
Selection of Families from the City of Chicago: 5th Stage.	32
Practical Limitations on the Multistage Sampling Technique	32
Applicability of Strategy to Suburban Cook County.	33
Methods of Data Collection	34
V. Strategy for Collection of Qualitative Interview Data with Complex Delivery Systems	36
VI. Timing for Implementation of Research	39
REFERENCES	40
APPENDIX A.	41

LIST OF TABLES

Table		Page
1.	Comparison of Total Population, Chicago Community Areas, 1960 and 1970	20

LIST OF FIGURES

Figure		Page
1.	Community Analysis Project Service Areas	11
2.	Service System for the Mentally Retarded	14
3.	Comparison of Total Population, Chicago Community Areas, 1960 and 1970	17
4.	Black Population as Percent of Total, Chicago Community Areas, 1970	18
5.	Preschool-Age Population, Under 6 Years, Chicago Community Areas, 1970	23
6.	School-Age Population, 6-17 Years, Chicago Community Areas, 1970	24
7.	Students with Spanish Surnames Enrolled in Public and Parochial Schools, Chicago Community Areas, 1970	25
8.	Percent of Children, Under 18 Years, Living in One-Parent Households, Chicago Community Areas, 1970.	26
9.	Educational Service Region of Cook County	35

ABSTRACT

A strategy for investigating parental choice of services for developmentally disabled children in geographical areas with complex populations and delivery systems is developed based upon a prototype conducted in an Illinois county including urban, suburban and rural populations. First described is the prototype for the model: a mail survey questionnaire of all consenting parents in the county, and an analysis of community services support networks which was incorporated into a handbook. Then a strategy is developed for a more complex service area utilizing Cook County (including Chicago) as a case study examplar.

INTRODUCTION

In order to conduct original basic research on the decision-making process of parents whose children have developmental disabilities, a project was undertaken for the two-year period beginning July 1977 with funding from the Extramural Research and Developmental Grants Program of the Illinois Department of Mental Health and Developmental Disabilities.*

The study was conducted in Lake County, Illinois. The county's close proximity to Northwestern University minimized travel time and expense. Lake County offers a wide range of services to developmentally disabled persons. There is a major state-operated residential center for severely and profoundly retarded persons. There are other smaller residential programs operated by private non-profit groups. The county is known for its comprehensive programs of special education offered through the public school districts.

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* Thanks to David Falk, Center for Urban Affairs' Chicago DataBook project for making statistical abstracts and census data available. We would also like to thank Joy Beaton, Chicago Community Trust, for commenting upon an earlier draft.

There are several sheltered workshop facilities for developmentally disabled persons. Within the area alternative residential programs for developmentally disabled persons are beginning to be developed (e.g. community living facilities, foster home networks, group homes). The county contains people of a wide range of socioeconomic, ethnic and racial backgrounds. Programs are relatively new and expanding. Lake County therefore provided an ideal situation in which to initiate the study of parental decision-making.

The area of Lake County was selected for the research population because: (1) it is geographically compact yet includes urban, suburban and rural populations; (2) it offers a wide variety of services for the developmentally disabled; and (3) providers and consumers of developmentally disabled services have a history of cooperation with past efforts to secure related information.

Sampling was not necessary because the population and delivery system was small enough to include all families and all service providers. Results from contacting the entire population enabled the identification of salient dimensions for probability sampling with more complex populations and delivery systems.

I. Collection of Quantitative Sample Survey Research Data in Lake County, Illinois

During the first project year a computerized review of the literature and open-ended depth interviews with parents were used to construct a mail survey questionnaire. The questionnaire was pretested with 66 families of children attending three schools for the developmentally disabled in Evanston, Illinois. The City of Evanston,

in Cook County, was selected for the pretest because of its proximity to Northwestern University and to Lake County.

Following revisions based upon the pretest results, a 57-page mail survey questionnaire was developed for the Lake County population. Structured closed-ended questions were designed to provide data regarding:

--the manner in which parents first discovered that their child was developmentally disabled;

--the availability of extended family and community support networks for the parents and their children;

--the nature of the developmental disability, skill levels, and kinds of limits the children have;

--the manner in which parents successfully or unsuccessfully secure the community services needed by their developmentally disabled children;

--the current professional intervention encountered and its perceived value;

--parents' attitudes regarding the direct services currently used for their children;

--parental involvement in their children's educational programs and organizations concerned with developmental disabilities;

--parents' opinions about general policy directions for the provision of services for the developmentally disabled in their community; and

--long-term plans and objectives these parents have for their children.

The population was defined as Lake County, Illinois, parents of developmentally disabled children ages 0-21 who receive services in Lake County. For the purposes of this study, developmentally disabled was defined as children handicapped by mental retardation, cerebral palsy, epilepsy, autism, or multiple handicaps involving one of the

foregoing, and whose handicap required more than 50 percent time in a special education program. Extensive correspondence and discussion with agencies at the State and local levels, as well as with individual facilities and parents contacted through the Illinois Governor's Advisory Council on Developmental Disabilities and local organizations, resulted in the identification of 751 families. Because of school administrators' interpretation of regulations governing rights of privacy, mailings requesting parents to consent to participate in the study went out through the educational facilities serving Lake County: three special education school districts, a state residential facility, a federally funded early intervention program, and six private facilities. Cover letters were included with the signature of the superintendent, principal, or director. Due to the low percentage of consents received after the first mailing (37.7 percent) these educational facilities also conducted a follow-up mailing. Essentially the researchers became a third party to their own research project. No listing of the population was available for follow-ups to estimate the bias introduced by non-respondents. In future studies, every effort should be made to avoid the use of consent forms mailed prior to questionnaire distribution and to obtain a listing of the population utilized for sampling purposes.

Questionnaires were mailed out over the three-month period from mid-March to mid-June 1978 to the 458 families (61.0 percent) who finally consented to participate. Included with each questionnaire mailed was a return post card with the respondent's name and the

statement, "I have mailed my completed questionnaire." Respondents were asked to mail the card, separately, at the same time they mailed the completed questionnaire. Since the questionnaires themselves were filled in anonymously, the post cards were our only check on which consenting parents had, in fact, returned questionnaires. A follow-up letter with a second return post card was sent approximately one month after the questionnaire was mailed if we had not received a post card notifying us of its return before that time. These procedures resulted in the return of 350 completed questionnaires (43.9 percent of the families identified and contacted; 72.1 percent of the families who consented to participate).

As consents were received and tabulated, a lower response rate than initially anticipated--especially in the one urban area in Lake County, i.e., Waukegan, Illinois--led to the willingness of the urban special education school district to provide aggregate classroom data. Information was made available on the census tract of family residence, marital status of students' parents (whether one- or two-parent family), level of children's disabilities, and year in school. Analysis of this aggregate classroom data by consent and response rates indicated that minority composition (black or Spanish language) of census tract of family residence exerted a significant effect upon consent rates. The nature of the placement within special education exerted an additional effect upon response rates. Families from areas with a larger minority population were less likely to consent; families with younger and less severely disabled children

were less likely to respond, once having consented to participate.*

II. Development of Handbook for Lake County Parents and Professionals

A second major component of the project, undertaken over the two-year project period was the development of a handbook for parents and professionals describing resources and strategies for optimizing the potential of developmentally disabled children. A premise underlying the original proposal was that a handbook for parents and professionals would be an important contribution towards reducing the information vacuum which delays parents in obtaining available and appropriate services for their children. An item was included on the survey questionnaire to obtain empirical data about whether or not parents themselves perceived the need for such a manual; 69 percent responded affirmatively.

Open-ended questions included on the survey questionnaire obtained specific information on the networks of services actually utilized by Lake County parents. Background materials and samples of handbooks from across the country were also assembled. These resources were used to construct three open-ended depth interview schedules--for direct service professionals, for administrators, and for parents' organization members. Forty interviews were conducted

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* For additional information on the analysis see: Marijean Suelzle, Marjorie Rogasner, and Vincent Keenan, "Informed consent in public opinion research: Protection of rights or new form of discrimination?" presented at the Midwest Association for Public Opinion Research annual conference, Chicago, Illinois, November, 1979. The paper is available from the senior author.

and transcribed with Lake County representatives of these three types of service providers. A 28-page detailed outline for the handbook was developed which was organized in terms of five sections--life course planning, family support, consumer action, developmental disabilities, and history and philosophy. The outline for the handbook specified the dimensions of the community services support network.

Over 100 additional agencies and facilities were contacted on the basis of our earlier feedback from the questionnaires and interviews. Over 70 of these agencies and facilities were indeed found to provide services for the developmentally disabled. They provided information for the handbook relevant to families in Lake County as well as information on networks of the service system in Chicago in Cook County. Additional information was sought to fill in topical areas of the handbook where gaps were apparent. On-site visits were made to 20 facilities, 30 interviews were conducted, and 3 conferences were attended. Contacts were made with programs and facilities serving the handicapped and their families--special recreation, special religious education, hospitals and clinics, residential facilities, educational and training facilities, social service agencies, places of employment, and state and federal agencies.

In the process of collecting this information, contact was also made with professionals and parents who were willing to provide editorial assistance with the final version of the handbook. Data collected for the handbook also provides complementary detailed descriptive information on community services support networks for interpreting

the survey research results.

III. Sampling Considerations for Conducting Research with Complex Populations and Delivery Systems

A large population, whether from a wide geographical area (such as in a state or national study) or from a major metropolitan area, prohibits the possibility of surveying the total population of parents of developmentally disabled children. The time and expense of conducting a child find, obtaining consents, and processing the survey would be prohibitive. Therefore a sampling technique must be devised to accommodate the limitations of finances, personnel, time, and quality control. Two probability sampling possibilities exist. One is the multistage cluster sampling technique; the other, the stratified sampling technique.*

The multistage sample involves the repeated sampling of clusters of elements such as community areas, census tracts and schools followed by the sampling of families within each of the selected clusters. This strategy involves primarily technical considerations to ensure the representativeness of the sample, through the method of probability proportionate to size sampling. Typically the families within clusters will be more similar to each other than to families from another cluster. Therefore, fewer families may be needed to adequately represent the natural cluster. A larger number

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* See Earl R. Babbie, Survey Research Methods, Belmont, California: Wadsworth, 1973 for a more extensive introduction to probability sampling alternatives.

of clusters will be necessary to represent the diversity found among the clusters. Multistage cluster sampling is appropriate from an administrative planning perspective where every family's needs should be given equal consideration. This sampling technique may be less appropriate for evaluation of unique individual clusters (for example, one school district, one census tract, or one community area) because the few families sampled to represent the cluster would be an inadequate number of cases for a detailed analysis at the cluster level.

Stratified sampling, the second probability sampling technique, involves the organization of the population into meaningful homogeneous subsets (for example, by race, income and/or level of children's disabilities). An adequate number of families for detailed analysis is selected from each subset. Rather than selecting a simple random or systematic sample from the total population, stratified sampling insures appropriate representation of the homogeneous subsets chosen, for example both high income and low income blacks. Stratified sampling is preferable from a research viewpoint where certain research questions need to be answered by comparing the differences between the homogeneous subsets. For example, it might be important to determine whether differences between blacks and whites with respect to choice of services resulted from cultural differences associated with racial background or from differences in family income. If this was the research question, stratification variables would be race and family income.

The strategies to be developed for areas with complex populations and delivery systems will combine some aspects of multistage

cluster sampling and of stratified sampling. The form in which data is available on the total population will determine which combination is the best choice.

IV. Strategy for Collection of Quantitative Sample Survey Research Data with a Complex Population (Cook County, Illinois)

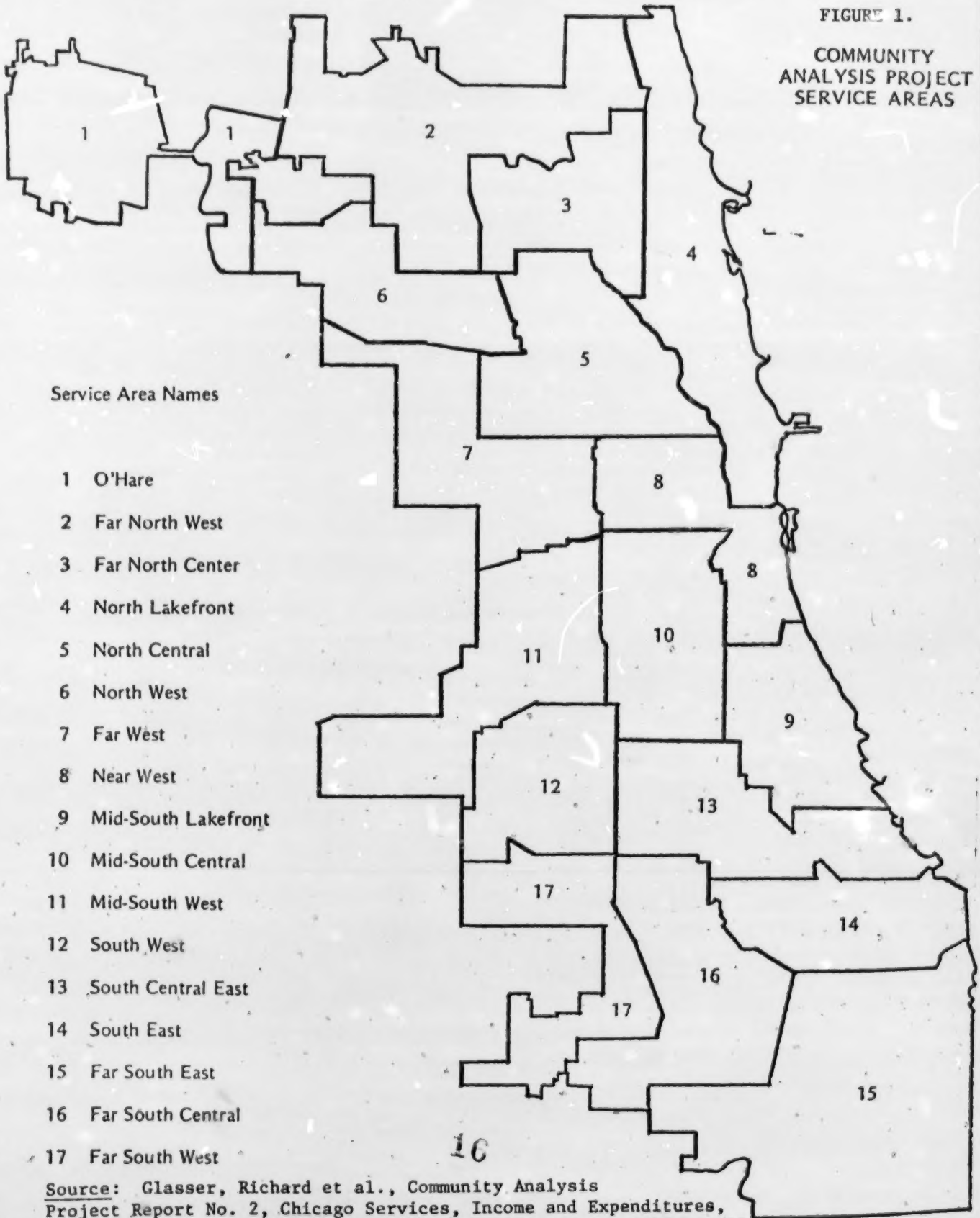
The case study selected for developing a research strategy is Cook County, Illinois. Cook County is located in the northeastern part of Illinois. According to the 1970 census there are approximately 5.5 million people living in the County, of which 3.4 million live in the City of Chicago. Like all major urban areas there are substantial proportions of black, Spanish language, and other minority groups. Since more detailed information on population and service delivery characteristics is available for the City of Chicago than for the County as a whole, sampling considerations for Chicago will be discussed first, and for the remainder of the County second.

Service Areas for the City of Chicago: 1st Stage

The first useful level of aggregate information for examining parental choice of services for the developmentally disabled is the designation of 17 Service Areas (see Figure 1) by the Community Analysis Project of the United Way of Metropolitan Chicago (Glasser et al., 1978). Data for these Service Areas is available on current levels of service, income and expenditures that are directed toward

FIGURE 1.

COMMUNITY ANALYSIS PROJECT SERVICE AREAS



Service Area Names

1 O'Hare
2 Far North West
3 Far North Center
4 North Lakefront
5 North Central
6 North West
7 Far West
8 Near West
9 Mid-South Lakefront
10 Mid-South Central
11 Mid-South West
12 South West
13 South Central East
14 South East
15 Far South East
16 Far South Central
17 Far South West

Source: Glasser, Richard et al., Community Analysis Project Report No. 2, Chicago Services, Income and Expenditures, Chicago, Illinois: United Way of Metropolitan Chicago, 1978, p. 10.

meeting human needs and solving human problems. Services for the mentally retarded were specifically examined, and could provide the first stage for listing and sampling.*

Services for the mentally retarded are not evenly distributed throughout the City (see Figure 2). Specific examples of uneven distribution of services, which would be salient criteria for sampling stratification variables, are:

1) Special day training and care for the mentally retarded is concentrated in two service areas, the South Central East (#13, Figure 1) and the South East (#14). For the entire City, over 70 percent of the clients served were 20 years of age or less. Over 63 percent of those receiving service were black as compared to 33 percent in the general population; over 14 percent were Hispanic compared to 7 percent in the general population; American Indians and Orientals were underrepresented. Seventy-two percent of all clients had incomes below the poverty level.

2) Special recreation is underrepresented in most geographic areas except for the Far North Center (#3), Mid-South Lakefront (#9) and South West (#12) which receive more service than would be expected based upon their respective populations. Almost 53 percent of those served were between the ages of 7 and 20 compared to only

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* Similar services breakdowns are not available for other types of developmental disabilities, such as epilepsy, cerebral palsy, and autism. Because mental retardation is the largest category by far, it is meaningful to use that criteria for the first stage of cluster sampling. Ensuring an adequate representation of the other developmental disabilities is a consideration for the final stage when the families to be surveyed are actually selected.

25 percent of the Chicago population. Blacks were slightly underrepresented whereas only half as many Hispanic persons were served as would be expected on the basis of their representation in the population. Forty-nine percent of all those served had incomes below the poverty level.

3) Long-term residential treatment is for the most part provided by public facilities located outside the City (by 83 percent of clients who received long-term residential treatment).* Only one percent received service in the North Lakefront area (#4) and 16 percent were served in the Mid-South-West area (#11). Over 70 percent of those served were 21 years of age or under. Black persons were somewhat underrepresented; only one percent were Hispanic, and no Orientals or American Indians were served. Thirty-nine percent had incomes below the poverty level.

In summary, Service Areas are useful criteria for the first stage of cluster sampling because of their potential for providing demographic information on the rate of utilization of services by different ethnic and socioeconomic groups. For example, if there is an overutilization of a service by blacks, this finding raises the research question of whether there is better outreach in low income minority communities than in other communities. An alternative explanation could be that low income minorities are more likely to

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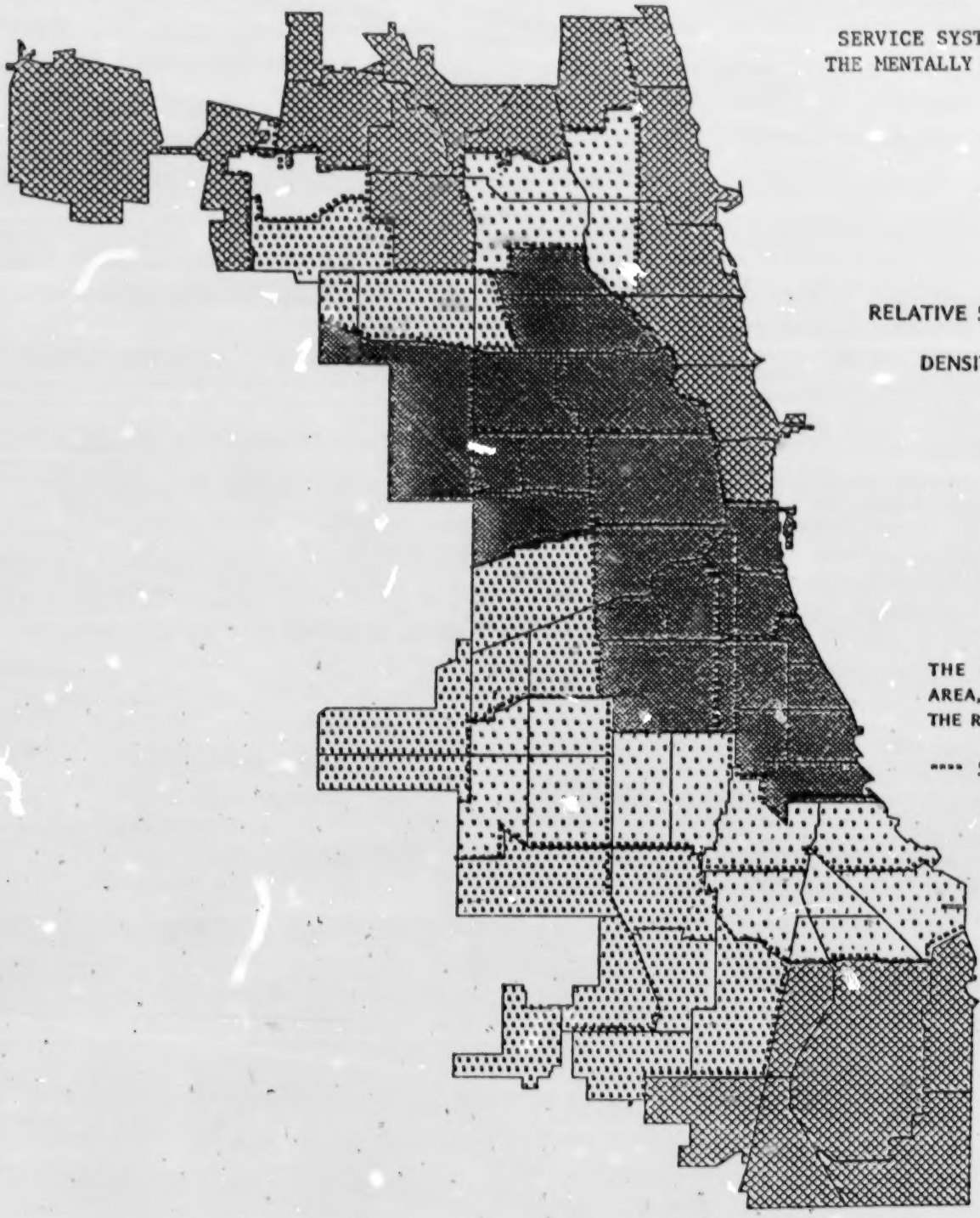
* These facilities treat clients from throughout the City of Chicago and are not community-based. Their location would be important in determining the sampling design for the remainder of the County.

FIGURE 2.

SERVICE SYSTEM FOR
THE MENTALLY RETARDED



Source: Glasser, Richard et al., Community Analysis Project Report No. 2, Chicago Services, Income and Expenditures, Chicago, Illinois: United Way of Metropolitan Chicago, 1978, p. 146.

be labeled as developmentally disabled due to culturally biased assessment procedures. Still another alternative could be that certain programs are not as attractive to upper class whites. To evaluate the adequacy and quality of service delivery services it is important to understand the dynamics of utilization. Service Areas should be selected to represent those having high and low levels of services for the mentally retarded.

Community Areas for the City of Chicago: 2nd Stage

The second useful level of aggregate information for examining parental choice of services for the developmentally disabled is the designation of 76 geographical units in Chicago that have been officially designated as Community Areas. Seventy-five of the Community Areas were first delineated over 40 years ago by the Social Science Research Committee of the University of Chicago, working in conjunction with local agencies and the U.S. Bureau of the Census. The seventy-sixth Community Area, O'Hare, was added after O'Hare Airport and its environs were annexed to the City of Chicago in 1958.

The original 75 Community Areas were drawn on the basis of many factors, including: the settlement, history, and growth of particular areas of the city; popular identification with these areas; location of shopping centers, schools, churches, and other institutions; location of such natural and artificial barriers as rivers, transportation routes, and parks; and the tabulation requirements of the

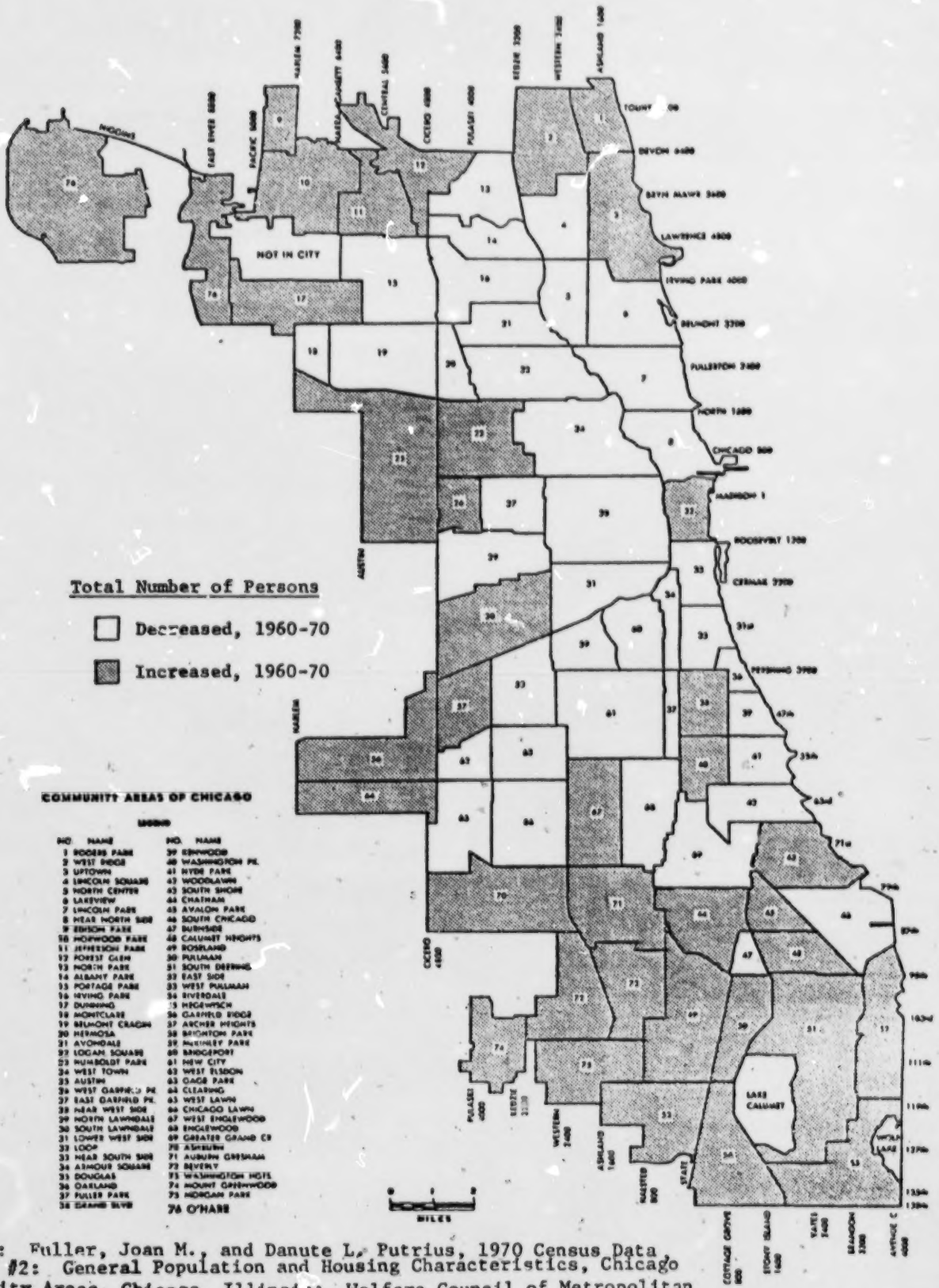
U.S. Bureau of the Census. Despite the many changes in population distribution and land use patterns that have taken place over the years, there has been a deliberate effort to maintain a constant set of Community Areas to retain the usefulness of the grid for studying change. Chicago statistics have been compiled for the original 75 Community Areas since 1930 and they remain, in many cases, meaningful local communities.

Fortunately, the geographical boundaries of the United Way's 17 Service Areas were constructed to coincide with the external perimeter of grouped Community Areas. Thus, once the sample of Service Areas has been determined, a sample of Community Areas within the designated Service Areas can comprise the second stage of cluster sampling. It is necessary to obtain a large enough number of families for further statistical analysis at the community level if informal support networks are to be examined in addition to the formalized delivery of services by agencies. An important stratification variable is community stability. Informal support networks through family, friends, and neighborhood groups would be expected to be stronger in stable communities.

Information on the Community Area stratification variables for 1970 census data has been made available by the Welfare Council of Metropolitan Chicago (Fuller and Putrius, 1971). Summary maps and tables report community stability (see Figure 3) and black population (see Figure 4). To fully implement the model for sampling it would be desirable to obtain comparable figures for other minority groups.

FIGURE 3.

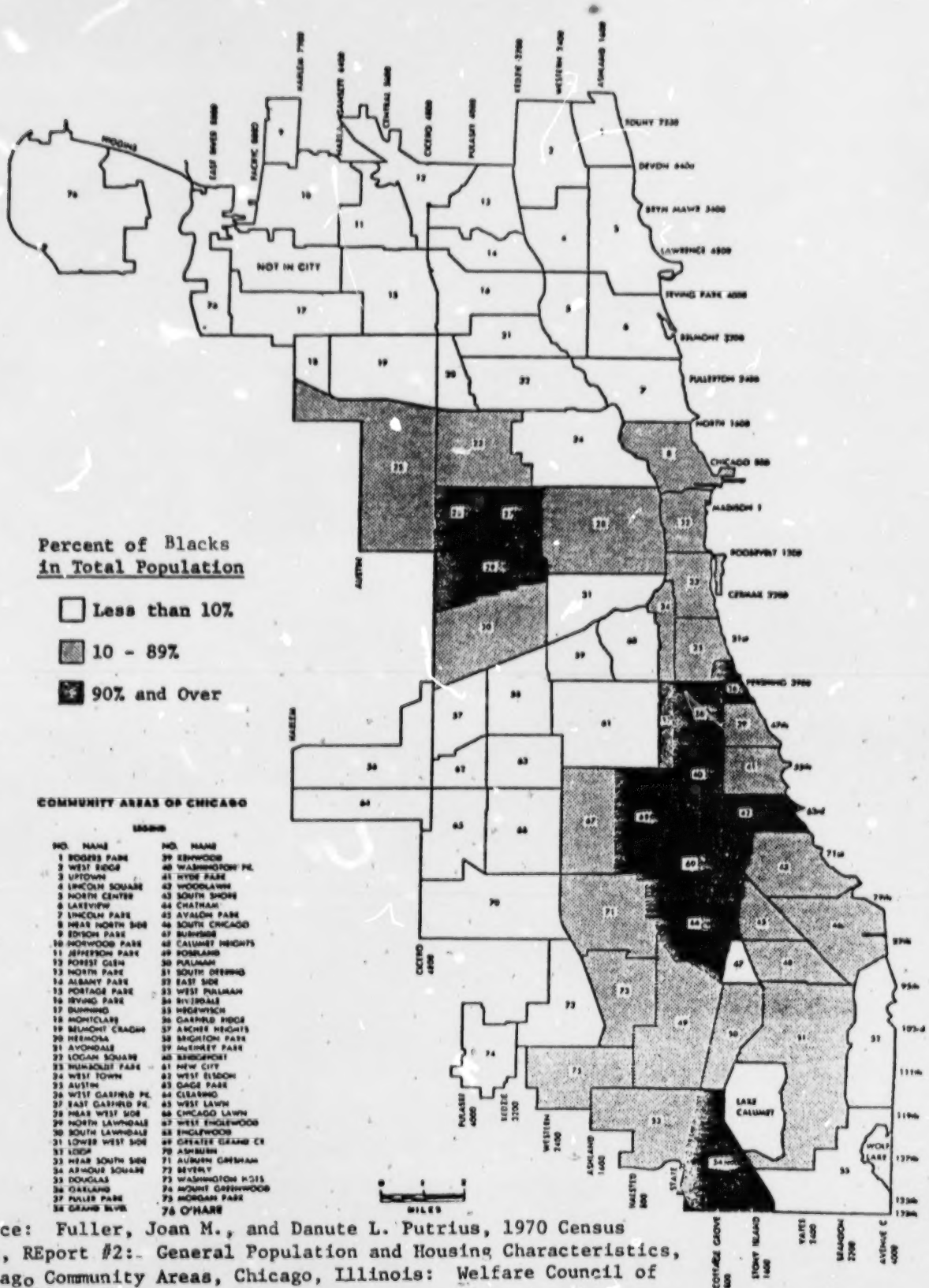
COMPARISON OF TOTAL POPULATION, CHICAGO COMMUNITY AREAS, 1960 AND 1970



Source: Fuller, Joan M., and Danute L. Putrius, 1970 Census Data, Report #2: General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, 1971, p. 5.

FIGURE 4.

BLACK POPULATION AS PERCENT OF TOTAL, CHICAGO COMMUNITY AREAS, 1970



Source: Fuller, Joan M., and Danute L. Putrius, 1970 Census Data, REport #2:- General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, p. 11.

The maps provide an initial view of stratification variables; tables provide more detailed information. For example, whereas Figure 3 provides an initial view of community stability, the accompanying table (see Table 1) provides the actual percentage increases or decreases for each community area. It would be necessary to examine the tables to optimize variability between the Community Areas sampled in terms of community stability versus community transitionality. Supplements (not illustrated in this report) are also available for each of the Community Areas providing more detailed breakdowns of population by age, sex, and race, and additional information about such items as the living arrangements of persons under 18, and characteristics of housing units and households. These supplements would be useful if there was any ambiguity remaining about which Community Areas to include in the sample based upon the more general level of information contained in the maps and tables.

In summary, Community Areas are useful criteria for the second stage of cluster sampling. Within the Service Areas having high and low levels of services for the mentally retarded (selected at the first sampling stage), Community Areas should be selected to represent those having high and low levels of community stability. Within communities selected as either stable or in transition, additional care would have to be exercised to include representation of different racial and income groups.

Incidence of Placement in Special Education for the City of Chicago: 3rd Stage

Information on total school enrollment for Community Areas

TABLE 1. COMPARISON OF TOTAL POPULATION, CHICAGO COMMUNITY AREAS, 1960 AND 1970

Community Area	POPULATION			
	1960	1970	Change 1960 - 1970	
	Number	Number	Number	Percent
CHICAGO TOTAL	3,550,404	3,366,957[a]	-183,447	-5.2
1. Rogers Park	56,888	60,770	+3,882	+6.8
2. West Ridge	63,884	65,429	+1,545	+2.4
3. Uptown	127,682	136,430	+8,748	+6.9
4. Lincoln Square	49,850	47,747	-2,103	-4.2
5. North Center	43,877	39,395	-4,482	-10.2
6. Lake View	118,764	114,905	-3,859	-3.2
7. Lincoln Park	88,836	67,793	-21,043	-23.7
8. Near North Side	75,509	70,250	-5,259	-7.0
9. Edison Park	12,568	13,241	+673	+5.4
10. Norwood Park	40,953	41,826	+873	+2.1
11. Jefferson Park	27,494	27,553	+59	+0.2
12. Forest Glen	19,228	20,531	+1,303	+6.8
13. North Park	17,866	16,732	-1,134	-6.3
14. Albany Park	49,450	47,085	-2,365	-4.8
15. Portage Park	65,925	63,603	-2,322	-3.5
16. Irving Park	58,298	54,897	-3,401	-5.8
17. Dunning	41,626	43,852	+2,226	+5.3
18. Montclare	11,802	11,675	-127	-1.1
19. Belmont Cragin	60,883	57,396	-3,487	-5.7
20. Hermosa	21,429	19,835	-1,594	-7.4
21. Avondale	39,748	35,796	-3,952	-9.9
22. Logan Square	94,799	88,540	-6,259	-6.6
23. Humboldt Park	71,609	71,707	+98	+0.1
24. West Town	139,657	124,784	-14,873	-10.6
25. Austin	125,133	127,973	+2,840	+2.3
26. W. Garfield Park	45,611	48,443	+2,832	+6.2
27. E. Garfield Park	66,871	52,176	-14,695	-22.0
28. Near West Side	126,610	78,682	-47,928	-37.9
29. North Lawndale	124,937	94,754	-30,183	-24.2
30. South Lawndale	60,940	62,892	+1,952	+3.2
31. Lower West Side	48,448	44,486	-3,962	-8.2
32. Loop	4,337	4,935	+598	+13.8
33. Near South Side	10,350	8,764	-1,586	-15.3
34. Armour Square	15,783	13,058	-2,725	-17.3
35. Douglas	52,325	47,709	-4,616	-8.8
36. Oakland	24,378	18,284	-6,094	-25.0
37. Fuller Park	12,181	7,368	-4,813	-39.5
38. Grand Boulevard	80,036	80,138	+102	+0.1
39. Kenwood	41,533	26,900	-14,633	-35.2
40. Washington Park	43,690	46,010	+2,320	+5.3
41. Hyde Park	45,577	33,552	-12,025	-26.4
42. Woodlawn	81,279	53,797	-27,482	-33.8
43. South Shore	73,086	80,644	+7,558	+10.3

... cont.

TABLE 1. COMPARISON OF TOTAL POPULATION, CHICAGO COMMUNITY AREAS, 1960 AND 1970 (Continued)

Community Area	POPULATION			
	1960	1970	Change 1960 - 1970	
	Number	Number	Number	Percent
44. Chatham	41,962	47,273	+5,311	+12.7
45. Avalon Park	12,710	14,412	+1,702	+13.4
46. South Chicago	49,913	45,646	-4,267	-8.5
47. Burnside	3,463	3,181	-282	-8.1
48. Calumet Heights	19,352	20,123	+771	+4.0
49. Roseland	58,750	62,501	+3,751	+6.4
50. Pullman	8,412	10,877	+2,465	+29.3
51. South Deering	18,794	19,270	+476	+2.5
52. East Side	23,214	24,648	+1,434	+6.2
53. West Pullman	35,397	40,318	+4,921	+13.9
54. Riverdale	11,448	15,015	+3,567	+31.2
55. Hegewisch	8,936	11,346	+2,410	+27.0
56. Garfield Ridge	40,449	42,984	+2,535	+6.3
57. Archer Heights	10,584	11,134	+550	+5.2
58. Brighton Park	38,019	35,614	-2,405	-6.3
59. McKinley Park	16,908	15,632	-1,276	-7.5
60. Bridgeport	41,560	35,161	-6,399	-15.4
61. New City	67,428	60,805	-6,623	-9.8
62. West Elsdon	14,215	14,059	-156	-1.1
63. Gage Park	28,244	26,698	-1,546	-5.5
64. Clearing	18,797	24,482	+5,685	+30.2
65. West Lawn	26,910	18,594	-8,316	-30.9
66. Chicago Lawn	51,347	48,435	-2,912	-5.7
67. West Englewood	58,516	61,904	+3,388	+5.8
68. Englewood	97,595	89,694	-7,901	-8.1
69. Greater Grand Cr.	63,169	54,393	-8,776	-13.9
70. Ashburn	38,638	47,157	+8,519	+22.0
71. Auburn Gresham	59,484	68,847	+9,363	+15.7
72. Beverly	24,814	26,770	+1,956	+7.9
73. Washington Heights	29,793	36,540	+6,747	+22.6
74. Mt. Greenwood	21,941	23,186	+1,245	+5.7
75. Morgan Park	27,912	31,011	+3,099	+11.1
76. O'Hare	NR[b]	6,327	-	-

[a]Counts for individual Community Areas may not add up to Chicago total because some data were suppressed on the Summary Tapes to protect confidentiality.

[b]Due to a mistake in tabulating, the U. S. Bureau of the Census reported no population data for the O'Hare Community Area in 1960. The 763 persons who lived in the O'Hare Area at that time were erroneously tabulated as residents of Community Area 17, Dunning.

Source: Fuller, Joan M., and Danute L. Putrius, 1970 Census Data, Report #2: General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, 1971, pp. 6-7.

selected from the designated Service Areas (sampling stages 1 and 2) is necessary baseline data for assessing the incidence of developmental disabilities in the population at risk (school-age children). The stratification variable for the third sampling stage would be a high or low incidence of placement in special education relative to the total public and private (independent and parochial) school enrollment.

3rd Stage, Step 1: Public and Private School Enrollments

The Welfare Council of Metropolitan Chicago's 1970 census summary data on Community Areas (Fuller and Putrius, 1971) also provides a limited amount of information on the school-age population of interest (0 to 21 years): preschool-age population (Figure 5), school-aged population (Figure 6), students with Spanish surnames (Figure 7), and children under 18 years living in one-parent households (Figure 8).

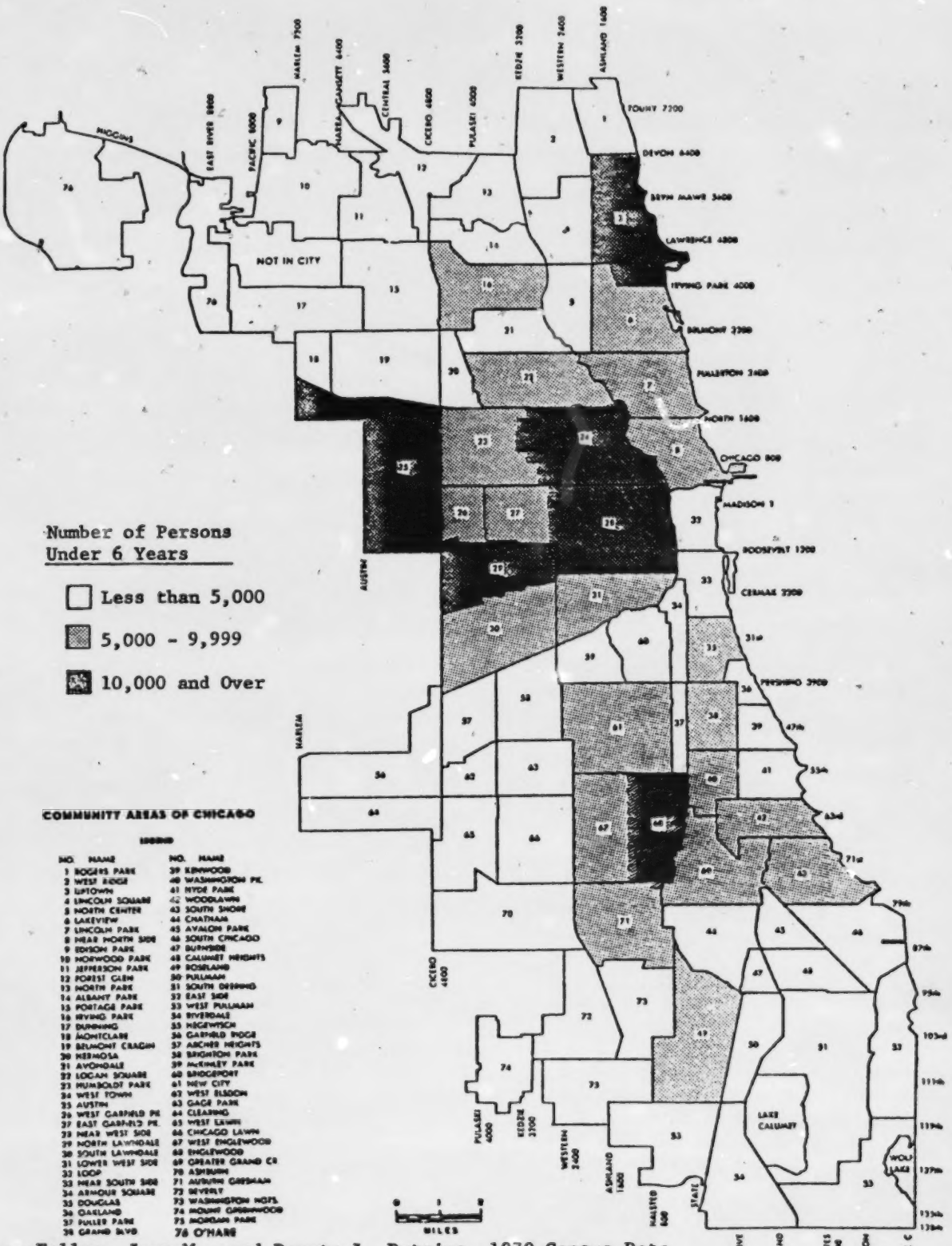
The City of Chicago's Department of Development and Planning (Hill, 1973) makes more detailed Census information available through a series of Statistical Abstracts, one of them at the Community Area level. For the City as a whole, at the time of the 1970 Census, the proportions were:

	Public	Private	Total
Nursery and kindergarten	77.8%	22.2	100.0%
Elementary	75.4%	24.6	100.0%
High School	73.3%	26.7	100.0%

Enrollments in private schools are substantial enough that they would have to be taken into account when determining the total school-

FIGURE 5.

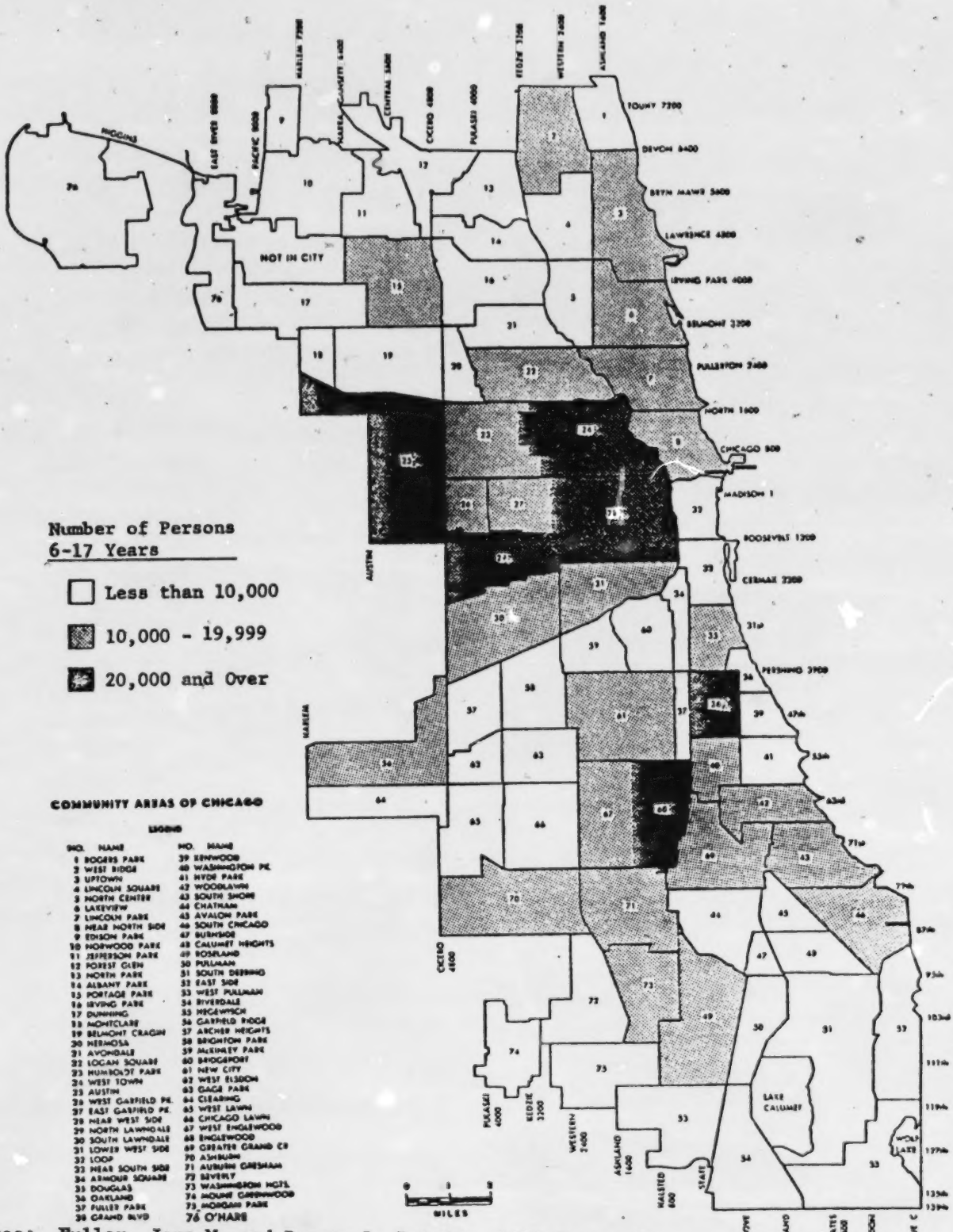
PRESCHOOL-AGE POPULATION, UNDER 6 YEARS, CHICAGO COMMUNITY AREAS, 1970



Source: Fuller, Joan M., and Danute L. Putrius, 1970 Census Data, Report #2: General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, 1971, p. 17.

FIGURE 6.

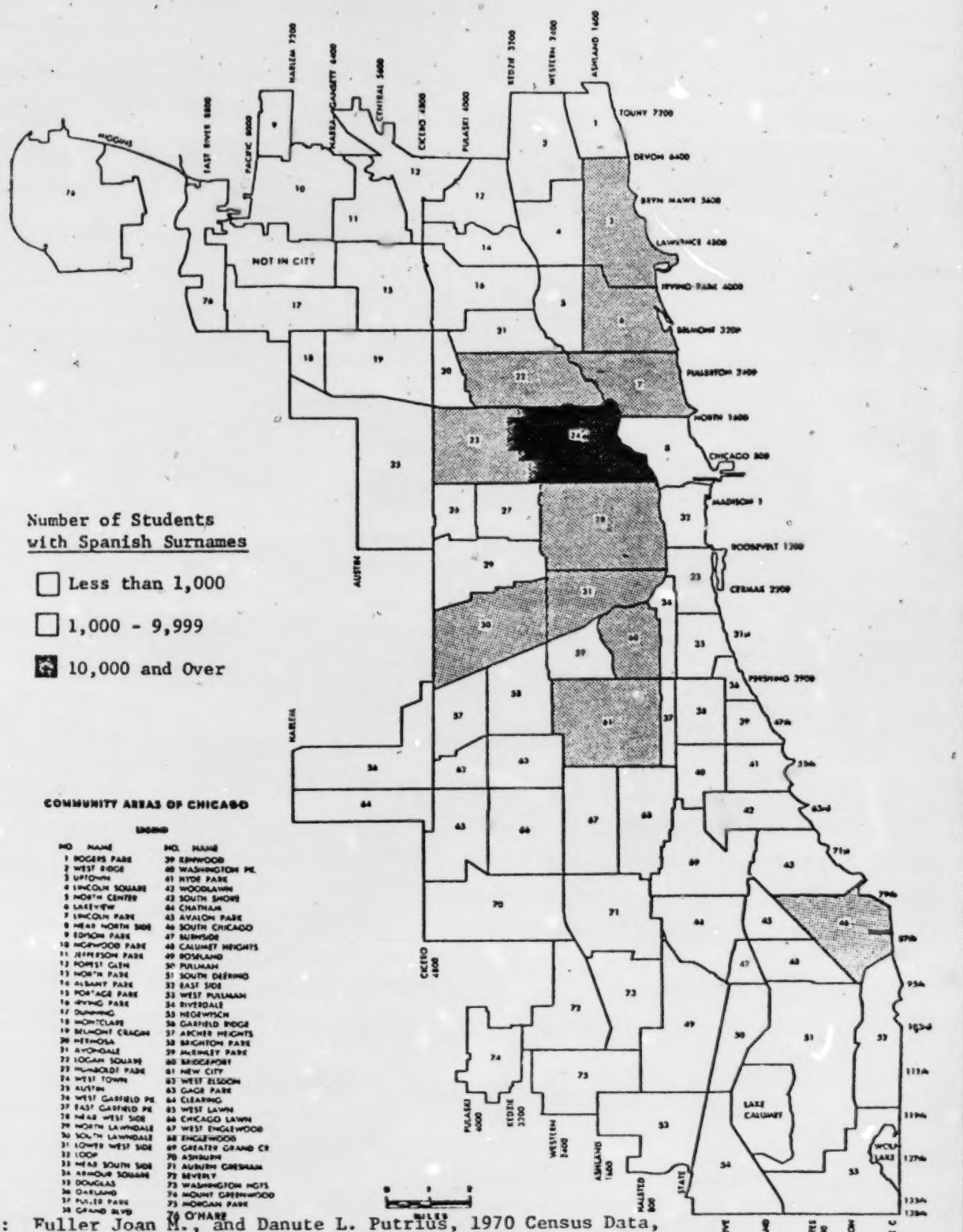
SCHOOL-AGE POPULATION, 6-17 YEARS, CHICAGO COMMUNITY AREAS, 1970



Source: Fuller, Joan M. and Danute L. Putrius, 1970 Census Data, Report #2: General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, 1971, p. 18.

FIGURE 7.

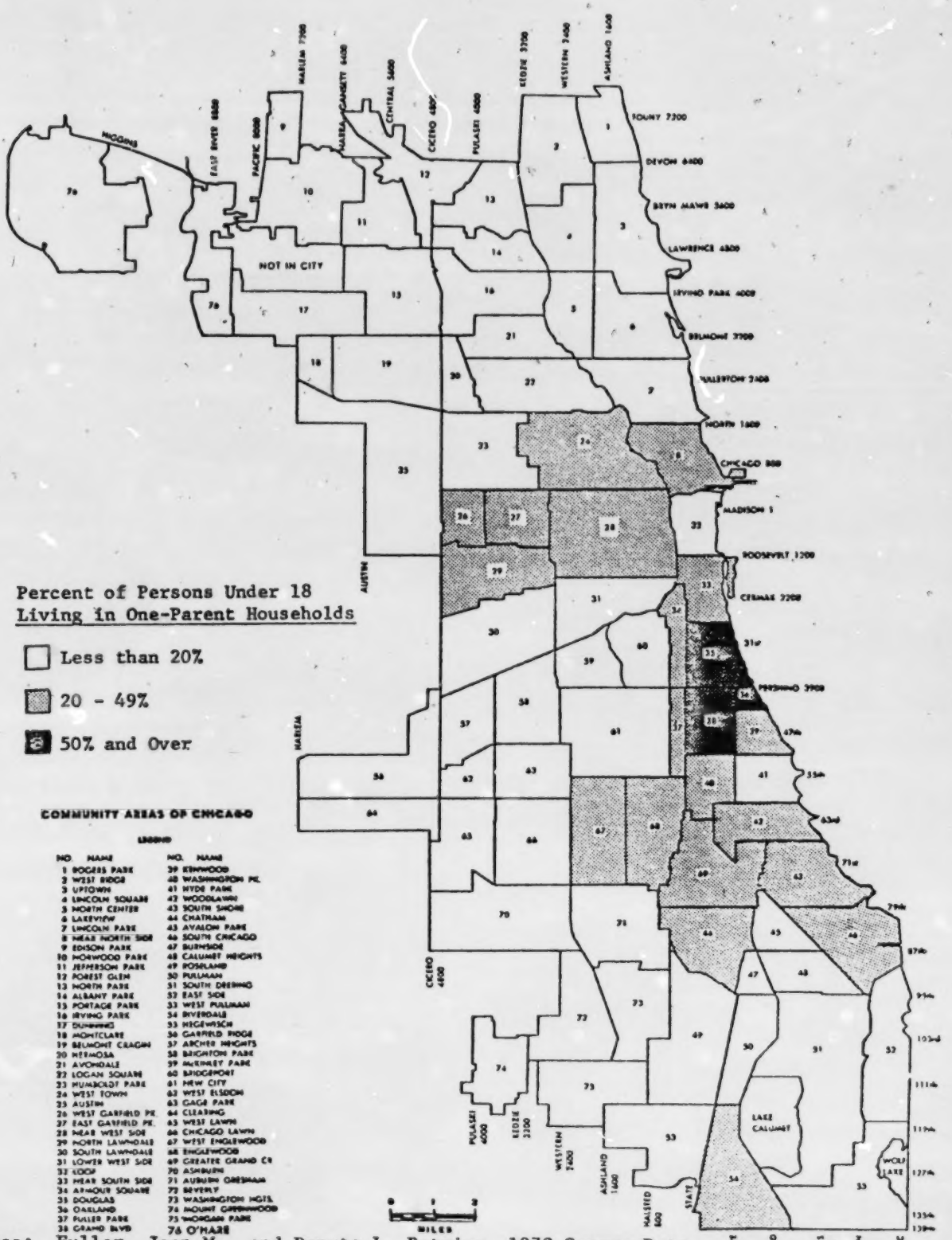
STUDENTS WITH SPANISH SURNAMES ENROLLED IN PUBLIC AND PAROCHIAL SCHOOLS, CHICAGO COMMUNITY AREAS, 1970



Source: Fuller Joan M., and Danute L. Putrius, 1970 Census Data, Report #2: General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, 1971, p. 21.

FIGURE 8.

PERCENT OF CHILDREN, UNDER 18 YEARS, LIVING IN ONE-PARENT HOUSEHOLDS, CHICAGO COMMUNITY AREAS, 1970



Source: Fuller, Joan M., and Danute L. Putrius, 1970 Census Data, Report #2: General Population and Housing Characteristics, Chicago Community Areas, Chicago, Illinois: Welfare Council of Metropolitan Chicago, 1971, p. 24.

aged population. The proportion of school-age children in public and private schools is reported in the Statistical Abstracts by Community Level. Since care must be exercised to include representation of different racial and income groups, a further delineation is necessary.

A report prepared for the Chicago Board of Education on school enrollments by Community Area (Downs et al., 1968), although outdated nonetheless provides a useful strategy for delineating school enrollments for each Community Area to reflect differentiations by both public and parochial enrollment and by white and nonwhite composition.* The pertinent information from the report is as follows:

1. Projection of Total School Enrollment by Sub-Area

> The Planning Department of the Chicago public school system provided elementary school enrollment information for the city of Chicago by block of residence of the students. The information by block residence was then compiled on the basis of community area boundaries. Racial delineations were then made with the assistance of the school board staff. The Catholic school system did not have comparable data for its elementary enrollment. However, questionnaires were sent to the principals of each parochial elementary school requesting their estimates of how many of their students came from each of the community areas which contributed enrollment to their school. The principals were also asked for estimates of the white and nonwhite composition of the students from each community area. We recognize that the parochial enrollment distribution may not be as refined as the public school data in this instance, but we believe it is adequately representative so that it was useful in our projections. The public and parochial school data were combined to deter-

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* Although not included in the 1968 report, independent private schools should also be included. They could be contacted in the same manner outlined for the parochial private schools.

mine the elementary enrollment for both public and parochial schools and also by white and nonwhite composition for each community area. High school data, however, were not available to make this same type of computation.

Nevertheless, the total school enrollment (that is, the enrollment of kindergarten through grade 12) was available from both the public and parochial school systems for the entire city. This information was also delineated by white and nonwhite students. Therefore, it was possible to calculate the ratio of the elementary (grades 1 through 8) enrollment to the total (kindergarten through grade 12) enrollment for the entire city. This was calculated for both public and parochial schools and by white and nonwhite composition for each system.

Then, the percentage of elementary students in the public school system to the total number of elementary students (that is, the public plus the parochial) in each community area was calculated. The percentages of elementary to total enrollment for both public and parochial schools were then weighted by the proportions of the students in the public and parochial school systems. These calculations resulted in a weighted percentage of the elementary enrollment to total enrollment for both white and nonwhite students in each community area.

2. Delineation of School Enrollment by White and Nonwhite Composition

The approach used in this step was to project the ratio of the percent of nonwhite of the school enrollment to the percent of nonwhite in the total community population. The 1966 school enrollment data had already been delineated into white and nonwhite components. However, it was necessary to delineate the population of each community area by its white and nonwhite composition. This was achieved by assessing the birth, death, and land use information, in addition to (Real Estate Research Corporation) maps which show nonwhite transition by blocks.

Then, the ratio of the enrollment percent of nonwhite to the population percent of nonwhite was calculated for each community area. It was assumed for the community areas which were not undergoing significant racial transition that the ratio of the enrollment percent of nonwhite to the total population percent of nonwhite would be constant throughout the projection period. A constant relationship was also assumed for the community areas which were undergoing only slight racial transition. However, for the community areas which were undergoing rather rapid transition, a more careful analysis was made.

3. Delineation of Community Area School Enrollments by Public and Parochial Enrollments

In order to delineate the public and parochial school enrollments, it was necessary to make a major assumption. It was assumed that the ratio of the elementary enrollment (grades 1 through 8) to the total parochial enrollment (kindergarten through grade 12) for each community area was approximately the same as that for the city as a whole. This assumption was necessary in order to determine the total enrollment in the parochial schools for each community area.

The first step was to convert the Catholic elementary enrollment to the total Catholic enrollment. This step was accomplished by dividing the 1966 parochial elementary enrollments for each community area by 0.733, which was the ratio of parochial elementary enrollments to total parochial enrollment for the entire city.

4. Delineation of Public and Parochial Enrollment by White and Nonwhite Composition

The next step involved combining the available information to delineate the public and parochial school enrollments by white and nonwhite composition.

Making this delineation involved estimating the percent of nonwhite composition of the parochial school enrollment. The parochial school enrollment in each of the community areas was, in general, much smaller than the enrollments for the public schools. Therefore, the variability of the parochial enrollment percentage of nonwhite composition would result in small differences being reflected in the larger public school enrollment figures. Consequently, by initiating the delineation with the parochial school enrollment as opposed to the public school enrollment, the final delineation would be less sensitive to the necessary judgmental assessments which had to be made.

5. Delineation of Public Enrollment by Elementary and High School Grades

Enrollment data which have been compiled in the 1960 Census were used to calculate the percentage of public elementary (kindergarten through grade 8) to the total (kindergarten through grade 12) public enrollment.

The ratio of elementary enrollment to total enrollment was not available in 1966 by community area. Only elementary

enrollment information was available. However, using data for the entire city, it was possible to estimate the ratio of elementary to total enrollment for each community area in 1966. The ratio for the city enrollment was 75 percent in both 1960 and 1966.

The community areas were differentiated and assigned to racial composition and economic level categories. The racial categories were: less than 25 percent nonwhite, 25 to 75 percent nonwhite, and greater than 75 percent nonwhite. The economic level categories were determined by inspecting the maximum and minimum median family income levels for the individual community areas in 1960, and dividing this range into five categories.

After assigning each community area to a matrix which described both the community area's racial and economic categories, the ratios of public elementary enrollment to total public enrollment were observed. It appeared that as the income level of a community area declined within a particular racial category, the percentage of elementary students to total enrollment increased. This indication most likely reflects, in part, the larger high school drop-out rate experienced in lower income areas. In addition, for a given income category, as the racial composition increased toward a greater percentage of nonwhites, the percentage of elementary students to the total enrollment also tended to increase. The inference drawn from this observation is that the high school drop-out rate among predominantly nonwhite communities is greater than the drop-out rate among predominantly white communities, even when income levels are similar.

Once information is obtained on the total school enrollment for public, independent, and parochial schools--whether by the foregoing technique or from a pre-existing data base if such is available--it can be compared to special education enrollments to determine whether the incidence of placement in special education is relatively high or low. The cooperation and endorsement of the Chicago Board of Education would be critical in terms of accessing existing data bases and school records. The information is necessary both for defining the population from which the sample would be drawn and for

contacting families identified for inclusion in the sample.

3rd Stage, Step 2: Special Education Enrollments

Special education classes within regular attendance centers would be determined on a school-by-school basis for those schools serving the Community Areas selected for the sample. In addition there are 16 separate facilities in the City which provide special education for the mentally retarded (Glasser, 1978: 179). Families residing in the designated Community Areas whose children were enrolled in these facilities would also be included in the sampling population. The ratio of special education enrollments to total school enrollments would be utilized to stratify special education services on the basis of high and low incidence of placement.

Classroom Enrollments for the City of Chicago: 4th Stage

Within the schools selected to represent both high and low incidences of placement in special education relative to total school enrollments as sampled within the clusters of Community Areas, the next stratification variable to be considered is level of child's disability. For example, the sample should include preschool, primary, and secondary classrooms for children whose developmental disabilities are mild, moderate, and severe and profound. A useful criterion for the initial listing of all classrooms in the schools, from which the sampled classrooms will be drawn, is that they should be home rooms for children who are in special education classes 50 percent or more of the time. This criterion is useful because it screens out children with learning disabilities and those in remedial classes,

providing a relatively pure sample of children with developmental disabilities.

Selection of Families from the City of Chicago: 5th Stage

From the classrooms selected to represent children whose disabilities are mild, moderate, and severe and profound (4th stage), the total number of families selected would be determined by the usual considerations of time, cost, and statistical constraints. Even at this level a simple random sample would not ensure an adequate number of cases in some categories for further statistical analysis. Among the families selected, care should be taken to include a sufficient number of children with all types of developmental disabilities (for example, children with cerebral palsy, autism, and epilepsy as well as mental retardation), children from different racial backgrounds, and children from one- and two-parent families. This data should be available at the classroom level from teachers and relatively easy to compile.*

Practical Limitations on the Multistage Sampling Technique

Practically, time, cost and feasibility constraints would preclude implementing the strategy through the five sampling stages in the stepwise procedure outlined. For a statistical analysis of subgroups, there simply would not be enough children, if any, in some of the subgroups implied by the sampling model--for example,

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* Although family income is undoubtedly equally important, it is not generally available to the school. If school lunch programs provided information on family income, it could be utilized as an additional stratification variable.

autistic, mildly disabled, preschool, black children from a one-parent household, located in a low-incidence referral to special education area, in a transitional community, with low level of services! The total number of families from whom data could be collected might be arrived at, say, after the 3rd stage. That is, the sample might consist of all families with children in special education classes within the schools selected. The purpose of following the stepwise model through to its logical conclusion was to highlight theoretical variables of importance in understanding the process whereby families choose services for their developmentally disabled children. Once all the necessary Service Area, Community Area, and school enrollment figures are obtained by race then a grid of transparency overlays could be constructed to pinpoint Community Areas which highlight clusters of the theoretically important stratification variables identified in the model.

Applicability of Strategy to Suburban Cook County

The Educational Service Region of Cook County contains 143 school districts in addition to the City of Chicago (see Appendix A). The entire County is served by fifteen special education cooperatives (see Figure 9).

The initial stage of the multistage cluster sampling technique would be to select cooperatives which maximize differences in types of populations served, e.g., by racial and family income characteristics as determined from Census data. It would also be desirable to select cooperatives serving the same geographical areas in which

public facilities providing long-term residential treatment are located (see Service Areas for the City of Chicago: 1st Stage).

Subsequent sampling stages involving incidence of placement in special education relative to total school-age populations, selection of classrooms and of families would follow the same considerations as Stages 3, 4 and 5 of the City of Chicago model.

Methods of Data Collection

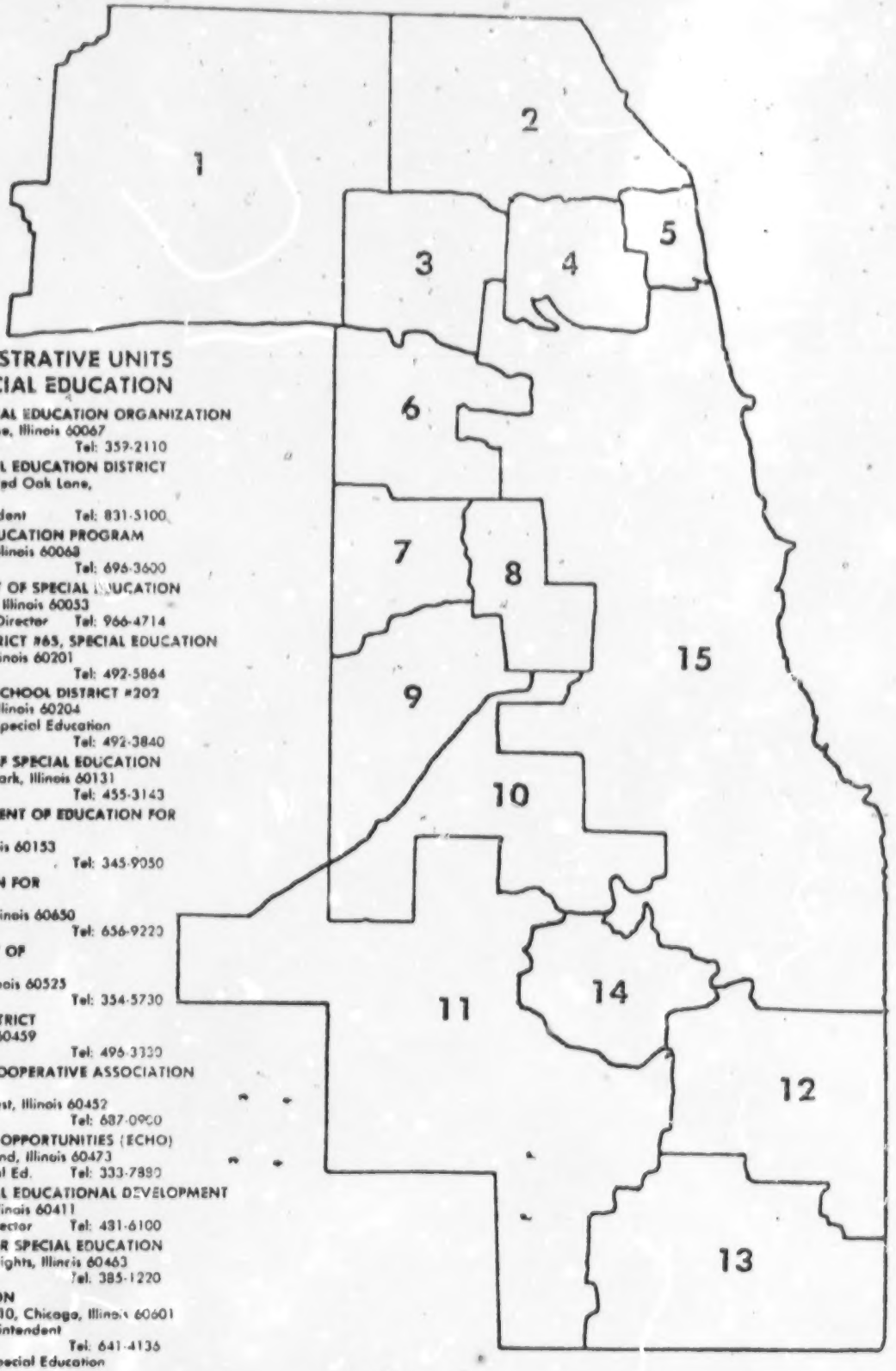
In general, the methods of data collection developed for the prototype study in Lake County, Illinois (see Section I) worked well and could be replicated with any population. It would be advisable to pretest the questionnaire and revise as necessary to reflect different conditions but little change is anticipated.

Some modifications of data collection techniques would be likely to increase consent and response rates, especially from families in which parents had not completed high school. Unfortunately this information is not available from school records and would have to be inferred from Census data or obtained from knowledgeable classroom teachers. Some suggestions are:

1) To improve consent rates, organize a public relations and information dissemination campaign about the significance of the project in advance. Write articles for the facilities' newsletters, attend parent group meetings, and involve the classroom teachers in composing and signing the cover letters soliciting study respondents. Send the questionnaires and consent forms together to the entire population.

FIGURE 9.

EDUCATIONAL SERVICE REGION OF COOK COUNTY



ADMINISTRATIVE UNITS OF SPECIAL EDUCATION

1 **NORTHWEST SUBURBAN SPECIAL EDUCATION ORGANIZATION**
500 S. Plum Grove Road, Palatine, Illinois 60067
Dr. Pamela Gillette, Director Tel: 359-2110

2 **NORTHERN SUBURBAN SPECIAL EDUCATION DISTRICT**
Stratford Center & School, 760 Red Oak Lane,
Highland Park, Illinois 60035
Dr. Stanley T. Bristol, Superintendent Tel: 831-5100

3 **MAINE TOWNSHIP SPECIAL EDUCATION PROGRAM**
1131 S. Dee Road, Park Ridge, Illinois 60068
Mr. E. Gaydon Brandt, Director Tel: 696-3600

4 **NILES TOWNSHIP DEPARTMENT OF SPECIAL EDUCATION**
8701 N. Menard, Morton Grove, Illinois 60053
Dr. Vernon F. Frazee, Executive Director Tel: 966-4714

5 **EVANSTON ELEMENTARY DISTRICT #65, SPECIAL EDUCATION**
1314 Ridge Avenue, Evanston, Illinois 60201
Dr. Norman E. Bowers, Director Tel: 492-5864

EVANSTON TOWNSHIP HIGH SCHOOL DISTRICT #202
1600 Dodge Avenue, Evanston, Illinois 60204
Mrs. Ellen Reynolds, Director of Special Education
& Pupil Personnel Services Tel: 492-3840

6 **LEYDEN AREA COOPERATIVE OF SPECIAL EDUCATION**
10401 Grand Avenue, Franklin Park, Illinois 60131
Dr. Guy H. Mahon, Director Tel: 455-3143

7 **PROVISO TOWNSHIP DEPARTMENT OF EDUCATION FOR EXCEPTIONAL CHILDREN**
1000 Van Buren, Maywood, Illinois 60153
Mr. Richard E. Perry, Director Tel: 345-9050

8 **WEST SUBURBAN ASSOCIATION FOR SPECIAL EDUCATION**
1225 South 60th Court, Cicero, Illinois 60650
Mr. Lawrence Kernagis, Director Tel: 656-9220

9 **LaGRANGE AREA DEPARTMENT OF SPECIAL EDUCATION**
1301 West Cossitt, LaGrange, Illinois 60525
Dr. Jerry C. Gross, Director Tel: 354-5730

10 **AERO SPECIAL EDUCATION DISTRICT**
7600 S. Mason, Burbank, Illinois 60459
Mr. Neil E. MacGregor, Director Tel: 496-3330

11 **SOUTHWEST COOK COUNTY COOPERATIVE ASSOCIATION FOR SPECIAL EDUCATION**
6020 West 151st Street, Oak Forest, Illinois 60452
Dr. Benjamin L. Braun, Director Tel: 687-0900

12 **EXCEPTIONAL CHILDREN HAVE OPPORTUNITIES (ECHO)**
320 East 161st Place, South Holland, Illinois 60473
Dr. Russell Petterer, Dir. of Special Ed. Tel: 333-7880

13 **SPEED - PROVIDES EXCEPTIONAL EDUCATIONAL DEVELOPMENT**
1125 Division, Chicago Heights, Illinois 60411
Mrs. Janis Freeman, Executive Director Tel: 481-6100

14 **EISENHOWER COOPERATIVE FOR SPECIAL EDUCATION**
12812 S. Austin Avenue, Palos Heights, Illinois 60463
Howard Falk, Director Tel: 385-1220

15 **CHICAGO BOARD OF EDUCATION**
228 North LaSalle Street, Room 910, Chicago, Illinois 60601
Mr. Albert Briggs, Assistant Superintendent
Pupil Personnel Services Tel: 641-4136
Mr. Martin Gabriel, Director of Special Education

2) To improve response rates, give parents the option of having an interviewer conduct the survey in the families' native languages, especially for schools and/or classrooms known to have high minority enrollments. For families who elect to receive a mail questionnaire, conduct telephone as well as mail follow-ups with those who consented but did not return a postcard indicating they had completed and returned the survey questionnaire.

V. Strategy for Collection of Qualitative Interview Data with Complex Delivery Systems

Parents' choice of services for their children with developmental disabilities depends both upon services being available and parents being knowledgeable about those services. At a time of new and expanding services, as has been the case for the developmentally disabled over the past fifteen years, it is often the case that services are not obtained because of a lack of awareness about their existence on the part of both parents and professionals. To fill this information vacuum, the development of a services handbook and directory could be undertaken in conjunction with the parents' survey questionnaire. The process of gathering information for the handbook will enhance analysis of data from the survey by anchoring the survey data in a relevant social context. For example, interpretation of the rate of use of a particular service depends upon whether or not the service is readily available.

Insights into the utilization of specific services can be obtained from the survey questionnaire. In the Lake County prototype, open-ended questions of the following type were asked: "Is your

developmentally disabled child involved with an organized youth group (for example, Scouts, YMCA, church group)?... If Yes, what is the name of the group?" All of the leads to specific organizations provided by such questions were followed up and included in a service directory, provided as an appendix to the handbook. In addition, the directory, "Human Services for Lake County People" (Sabato, 1977) provided a useful starting place for contacting agencies which appeared to offer services appropriate for developmentally disabled children, and for following up with interviews when this was the case. Similar directories exist for most regional and metropolitan areas, for example, the United Way's "Social Service Directory, Metropolitan Chicago" (Cousins, 1977) and the Coordinating Council for Handicapped Children's "Directory of Services for Handicapped Children and Adults" (Brown, Brozek, and Sullivan, 1979).

In-person or telephone interviews should be conducted with all organizations identified as providing services to developmentally disabled children and their families. The organizations would include all those within the geographical area sampled--for example, a school district or a Community Area--as well as those facilities which serve the sampled population but are not community-based. Care should be taken to identify gaps in, as well as provision of, services by developing a theoretical model of needs over the life cycle of developmentally disabled children. The National Association for Retarded Citizens has identified the services which should be included in a

comprehensive delivery system, and their listing can serve as the starting point for developing the theoretical model of needs. The services listed are:

1. Community diagnostic-treatment clinics
2. Home visit programs
3. Parent counseling
4. Day training services
5. Pre-school classes
6. Special education and training centers for all ages
7. Religious education
8. Recreation facilities
9. Vocational services and training programs for young adults
10. Independent living centers
11. Residential facilities
12. Half-way houses
13. Citizen advocacy
14. Continuing research.

Interviews with administrators provide an overview of the organizations' services over time; interviews with direct service professionals provide insight into how or whether the organizations' stated functions are actually implemented. Interviewing every type of professional in every type of organization is neither feasible nor necessary for mapping the social context within which services are delivered. Care should be taken, however, to interview each type of professional in both public and private settings. It is also important to interview

professionals working in residential settings as well as those who provide services to children living with families.

VI. Timing for Implementation of Research

The magnitude of the research study outlined, for a complex population and delivery system, would require the cooperation of consolidated networks of services, such as the United Way, Welfare Council, and State and local Boards of Education. Such cooperation is intrinsic to obtaining information for sampling decisions as well as administrative and staff support from individual schools and facilities. Endorsement of and support for the study by the Illinois Association for Retarded Citizens, the Illinois Society for Autistic Children, United Cerebral Palsy of Greater Chicago, and the Epilepsy Foundation of America would be critical for involving parents and thereby ensuring an adequate response rate. Support from leadership within the black, Latino and other ethnic communities would be critical for these populations.

Given the crucial importance of sampling based upon as reliable demographic information as possible, it is not recommended that such a study be conducted until 1980 Census data becomes available. It is recommended that such a study be conducted as soon as possible after the 1980 Census data does become available.

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APPENDIX A.

EDUCATIONAL SERVICE REGION OF COOK COUNTY *
33 West Grand Avenue
Chicago, Illinois 60610
Richard J. Martwick, Superintendent
Telephone: 443-5000

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
15 Palatine Comm. Consol.	Dr. Frank C. Whiteley 10,941	505 S. Quentin Road Palatine 60067	358-4400
21 Wheeling Comm.	Dr. Kenneth F. Gill 7,164	999 W. Dundee Road Wheeling	537-8270
23 Prospect Heights	Edward Grodsky 1,495	700 N. Schoenbeck Road Prospect Heights 60070	870-3850
25 Arlington Heights	Dr. Donald V. Strong 6,171	301 W. South Street Arlington Heights 60005	398-4200
26 River Trails	John Fridlund 1,837	1900 E. Kensington Road Mt. Prospect 60056	297-4120
27 Northbrook	Dr. James L. Rohrabaugh 1,646	500 Laburnum Drive Northbrook 60062	498-2610
28 Northbrook	Dr. Homer O. Harvey 1,953	1475 Maple Avenue Northbrook 60062	CR2-0600
29 Sunset Ridge	Dr. Rodney J. Lewis 428	525 Sunset Ridge Road Northfield 60093	446-6383
30 Northbrook	Dr. Theodore Kamatos 1,670	1880 Holste Road Northbrook 60062	498-4190
31 West Northfied	Dr. Al[illegible]n P. Zak 771	3131 Techny Road Northbrook 60062	272-6880
34 Glenview Comm. Consol.	Dr. William J. Attea 3,230	1401 Greenwood Glenview 60025	724-7000
35 Glencoe	Dr. Charles R. Young 1,327	999 Green Bay Road Glencoe 60022	VE5-2100
36 Winnetka	Dr. Donald S. Monroe 1,840	1155 Oak Street Winnetka 60093	446-9400
37 Avoca	Dr. Alfred J. Price 681	2921 Illinois Road Wilmette 60091	251-3587
38 Kenilworth	Dr. John A. Beckwith 567	542 Abbotsford Road Kenilworth 60043	AL1-1565
39 Wilmette	Larry J. Love 3,183	615 Locust Road Wilmette 60091	256-2450

* Total district enrollment for each district is indicated just below the Superintendents' names. We would like to express our thanks to Dr. Barbara Deitch Waller, Assistant Superintendent, Special Education, Cook County, for making these figures available to us.

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
54 Schaumburg Comm.	Wayne E. Schaible 17,120	524 E. Schaumburg Road Schaumburg 60194	885-6700
57 Mt. Prospect	Dr. Earl L. Sutter 2,170	701 W. Gregory Street Mt. Prospect 60056	CL9-1200
59 Community Consol.	James K. Fay 9,011	2123 S. Arlington Heights Rd. Arlington Heights 60005	593-4300
62 Des Plaines Comm. Consol.	Dr. Eric A. Sahlberg 4,530	777 Algonquin Road Des Plaines 60018	824-1136
63 East Maine	Kenneth C. Moe 4,115	10150 Dee Road Des Plaines 60016	299-1900
64 Park Ridge Comm. Consol.	Dr. Raymond E. Hendee 3,920	164 S. Prospect Avenue Park Ridge 60068	823-1141
65 Evanston Comm. Consol.	Joseph E. Hill 7,530	1314 Ridge Avenue Evanston 60201	492-5986
67 Golf	William J. Stoutt 845	9401 Waukegan Road Morton Grove 60053	YO6-8200
68 Skokie	Dr. Paul Rodgers 1,812	9440 Kenton Avenue Skokie 60076	676-9000
69 Skokie	Dr. Ralph M. Johnson 1,156	5100 Madison Street Skokie 60076	OR5-7666
70 Morton Grove	Edward Eckhardt 700	6200 Lake Street Morton Grove 60053	YO5-6200
71 Niles	Clarence E. Culver 430	6935 Touhy Avenue Niles 60648	647-9752
72 Fairview	Dr. Larry Blue 510	7040 Laramie Skokie 60076	674-6215
73 East Prairie	Robert E. Allison 366	3907 Dobson Street Skokie 60076	OR3-1141
73½ Skokie	Dr. Oliver McCracken 770	8000 E. Prairie Road Skokie 60076	OR3-1220
74 Lincolnwood	Dr. Marvin O. Garlich 1,231	6950 E. Prairie Road Lincolnwood 60645	OR5-8234
78 Rosemont	Raymond P. North 255	6101 N. Ruby Street Rosemont 60018	825-0144
79 Pennoyer	Deno J. Fenili 332	5200 N. Cumberland Road Norridge 60656	456-9094
80 Norridge	Ralph A. Gebert 957	4251 N. Oriole Avenue Norridge 60634	GL3-4847

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
81 Schiller Park	Dr. Michael F. Stramaglia 1,245	4050 Wagner Schiller Park 60176	671-1816
83 Mannheim	Robert H. McKinney 2,453	10401 W. Grand Avenue Franklin Park 60131	455-4413
84 Franklin Park	Lawrence W. Passow 1,259	9702 W. Grand Avenue Franklin Park 60131	455-4230
84½ Rhodes	Dr. Tom Rich 468	8931 W. Fullerton Avenue River Grove 60171	453-1266
85 River Grove	Dr. Anthony I. Torres 512	2650 Thatcher Avenue River Grove 60171	453-6172
86 Union Ridge	Karl O. Gandt 430	4600 N. Oak Park Avenue Harwood Heights 60656	867-5822
87 Berkeley	Dr. Howard S. Smucker 2,074	5400 St. Charles Road Berkeley 60163	544-9188
88 Bellwood	Dr. Harry J. Hayes 2,641	640 Eastern Avenue Bellwood 60104	544-5450
89 Maywood	Dr. Raymond Slas 5,844	1133 S. 8th Avenue Maywood 60153	681-3933
90 River Forest	Dr. Wayne W. Buchholz 1,062	7776 Lake Street River Forest 60305	PR1-8282
91 Forest Park	Arthur E. Jones 844	9393 Beloit Forest Park 60130	366-5700
92 Lindop	Dr. Charles W. Mitchell, Jr. 529	2400 S. 18th Avenue Broadview 60153	FI5-3110
92½ Westchester	Richard T. Crohn 1,217	9981 Canterbury Westchester 60153	865-8000
93 Hillside	Dr. Donald M. Van Devander 400	4804 W. Harrison Hillside 60162	449-7280
94 Komarek	Jack D. Riddle 394	8940 W. 24th Street North Riverside 60546	HI7-8030
95 Brookfield	Gerald A. Nordberg 853	3524 Maple Avenue Brookfield 60513	HU5-0606
96 Riverside	Dr. J. Luster Godbey 1,049	63 Woodside Road Riverside 60546	447-5007
97 Oak Park	Dr. Martin A. McCullough 5,350	970 Madison Street Oak Park 60302	386-4015
98 Berwyn	Roger F. Smith 1,338	1427 S. Oak Park Avenue Berwyn 60402	GU4-6200

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
99 Cicero	Dr. John P. Hayes 5,371	5110 W. 24th Street Cicero 60650	863-4856
100 Berwyn	Dr. Robert G. Gentry 1,861	26th Street & East Avenue Berwyn 60402	PI9-3050
101 Western Springs	Dr. Donald E. Barnes 1,259	4335 Howard Avenue Western Springs 60558	246-3700
102 La Grange	Dr. Paul M. Schilling 2,336	930 Barnsdale Road La Grange Park 60525	354-1082
103 Lyons	Dr. C.A. Christ 1,833	4100 Joliet Avenue Lyons 60534	447-7902
104 Summit	James C. Wrenn 1,350	60th Street & 74th Avenue Summit 60501	458-0505
105 La Grange	Arthur H. Franson 1,120	1001 S. Spring Avenue La Grange 60525	352-6090
106 La Grange Highlands	Dr. Paul W. Jung 830	1750 Plainfield Road La Grange 60525	246-3085
107 Pleasantdale	Dr. Walter J. Molo, Jr. 565	7450 S. Wolf Road La Grange 60525	246-3210
108 Willow Springs Consol.	Guthrie Catlin 442	8345 Archer Avenue Willow Springs 60480	839-6828
109 Common	Dr. Arvid E. Nelson 3,058	80th Street & 82nd Avenue Justice 60458	496-7100
110 Central Stickney	Ethel Covington 286	50th Street & Long Avenue Chicago 60638	458-1152
111 South Stickney	James W. Bokenkamp 3,867	7600 S. Central Avenue Burbank 60459	496-0500
113 Lemont Comm. Consol.	Dr. Ronald F. Knecht 849	1130 Kim Place Lemont 60439	257-2286
117 North Palos	Tom P. Kostes 3,485	8425 W. 95th Street Hickory Hills 60457	598-5500
118 Palos Comm. Consol.	Dr. James E. Riebock 448-4800	8800 W. 119th Street Palos Park 60464	448-4800
122 Ridgeland	Robert L. Olcese 2,372	6500 W. 95th Street Oak Lawn 60453	599-5550
123 Oak Lawn-Hometown	Dr. Douglas A. McGugan 3,116	4201 W. 93rd Street Oak Lawn 60453	423-0150
124 Evergreen Park	Leon M. Eich 1,438	9400 S. Sawyer Avenue Evergreen Park 60642	423-0950

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
125 Atwood Heights	Stephen J. Horvath, Jr. 785	3900 W. 116th Place Alsip 60658	388-3487
126 Alsip, Hazelgreen & Oak Lawn	Dr. William D. Smith 1,791	5201 W. 115th Street Worth 60482	389-1900
127 Worth	Rosemary Lucas 1,278	111th Street & Oak Park Ave. Worth 60482	448-2800
127½ Chicago Ridge	Dr. John E. Johnson 1,345	10835 S. Lombard Avenue Chicago Ridge 60415	636-2000
128 Palos Heights	Dr. Edward T. Rancic 1,016	6610 Highland Drive Palos Heights 60463	448-0060
130 Blue Island	Dr. John J. Wroblewski 3,619	12300 Greenwood Avenue Blue Island 60406	385-6800
132 Calumet	Milton George 1,052	1440 Ve[illegible] Street Calume[illegible] 60643	388-8011
133 Patton	Charles Powers 422	137th & Stewart Avenue Riverdale 60627	841-2420
135 Orland Park	Norbert Jeuling 3,119	151st Street & 94th Avenue Orland Park 60462	349-5300
140 Kirby	John A. Bannes 2,177	7601 W. 160th Street Tinley Park 60477	532-6462
142 Forest Ridge	Arthur T. Lange 2,023	14950 Laramie P.O. Oak Forest 60452	687-3334
143 Midlothian	Virginia L. Digman 2,239	4500 W. 143rd Street Midlothian 60445	FU8-6450
143½ Posen-Robbins	Godfrey Cronin 1,739	14545 California Avenue Posen 60469	FU8-7200
144 Markham	Dr. Jack D. Felger 3,653	3015 W. 163rd Street Markham 60426	ED1-0880
145 Arbor Park	P.R. Dardano 1,488	15901 Forest Avenue Oak Forest 60452	687-8040
146 Tinley Park Comm. Consol.	Dr. Robert W. Procunier 2,674	17316 Oak Park Avenue Tinley Park 60477	532-1771
147 Harvey	John Sawyer III 2,720	155th Place & Hoyne Avenue Harvey 60426	339-9500
148 Dolton	Fred A. Siekmann 2,054	14151 Lincoln Avenue Dolton 60419	841-2290

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
149 Dolton	Dr. Truman Owens 3,267	15141 Dorchester Avenue Dolton 60419	841-9500
150 South Holland	Cornelius Veldhuis 1,440	170th & Cottage Grove Avenue South Holland 60473	339-4240
151 South Holland	Dr. Thomas Van Dam 1,240	16001 Minerva South Holland 60473	ED9-1516
152 Harvey	Dr. Robert M. Matone 3,564	152nd & Myrtle Streets Harvey 60426	ED3-0300
152½ Hazel Crest	Brendan Foley 1,418	170th Street & Dixie Highway Hazel Crest 60429	335-0790
153 Homewood	Dr. Irving Miller 1,967	18211 Aberdeen Avenue Homewood 60430	799-5661
154 Thornton	Theodore M. Goldberg 393	700 N. Park Avenue Thornton 60476	877-5160
154½ Burnham	Harold Younger 250	139th & Greenbay Chicago 60633	862-8636
155 Calumet City	Ronald Small 874	Memorial Drive & Superior Ave. Calumet City 60409	862-7665
156 Calumet City	John D. Frattick 562	410 W. 157th Street Calumet City 60409	862-6620
157 Hoover-Schrum Memorial	M. Gene Kimmel 855	165th Street & Gordon Avenue Calumet City 60409	862-4236
158 Lansing	William H. Simpson 2,126	2721 Ridge Road Lansing 60438	474-6700
159 Sieden-Prairie	Donald J. Tesmond 1,521	725 Notre Dame Matteson 60443	720-1300
160 Country Club Hills	Zenon J. Sykuta 1,365	18501 S. Baker Avenue Country Club Hills 60477	798-0693
161 Flossmoor	Mardell Parker 2,781	2810 School Street Flossmoor 60422	798-2651
162 Matteson	Jacob Schlenker 2,629	21244 Illinois Street Matteson 60443	748-0100
163 Park Forest	Ivan A. Baker 2,918	242 S. Orchard Drive Park Forest 60466	748-7050
167 Brookwood	Dr. Richard E. Davis 1,797	Glenwood-Lansing Road Glenwood 60425	758-5190

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
168 Community Consol.	Dr. Lorene K. Wills 2,109	1825 215th Place Sauk Village 60411	758-1610
169 East Chicago Heights	Dr. Samuel Shepard, Jr. 1,438	1101 Tenth Street East Chicago Heights 60411	758-1370
170 Chicago Heights	Franklin Richards 3,885	16th Street at Aberdeen Chicago Heights 60411	754-3700
171 Sunnybrook	Durward L. Schuetz 1,153	19266 Burnham Avenue Lansing 60438	895-0750
172 Sandridge	Richard D. Wangerow 186	Glenwood-Dyer Road R.R. #1, Box 91 Lynwood 60411	895-2450
194 Steger	Milton R. Whitten 2,012	Richton Road & Park Avenue Steger 60475	755-0022
HIGH SCHOOL DISTRICTS			
200 Oak Park & River Forest	Dr. John C. Swanson 4044	201 N. Scoville Avenue Oak Park 60302	383-0700
201 Morton	Dr. Joseph Ondrus 5,953	2423 Austin Boulevard Cicero 60650	656-2300
202 Evanston	Dr. Margaret G. Labs 4,187	1600 Dodge Avenue Evanston 60204	492-3800
203 New Trier	Dr. Roderick N. Bickert 5,563	3013 Illinois Road Wilmette 60091	251-5330
204 Lyons	Dr. Donald D. Reber 4,498	100 S. Brainard Avenue La Grange 60525	354-4220
205 Thornton	William E. Augustus 9,472	151st & Broadway Harvey 60426	596-1000
206 Bloom	Dr. Richard Carrabine 5,125	Dixie Highway & 10th Street Chicago Heights 60411	755-7010
207 Maine	Dr. Richard R. Short 579	1131 S. Dee Road Park Ridge 60068	696-3600
208 Riverside-Brookfield	Dr. James R. Trost 1,730..	Ridgewood & Golf Road Riverside 60546	442-7500
209 Proviso	Dr. Charles C. Holt 7,012	807 S. 1st Avenue Maywood 60153	FI4-7000
210 Lemont	Robert H. Tober 812	800 Porter Street Lemont 60439	257-5838

DISTRICT	SUPERINTENDENT	ADMINISTRATIVE OFFICE ADDRESS	PHONE
211 Township H.S.	Dr. Richard Kolze ~~359-3300~~ 11,944	1750 Roselle Road Palatine 60067	359-3300
212 Leyden Community	Dr. David F. Byrne 4,262	3400 N. Rose Street Franklin Park 60131	678-7710
214 Township H.S.	Dr. Edward H. Gilbert 18,811	799 W. Kensington Road Mt. Prospect 60056	259-5300
215 Thornton Fract. Twp.	Dr. James W. Verchota 3,800	1601 Wentworth Avenue Calumet City 60409	868-2333
217 Argo Community	Charles F. Ploszek 1,904	7329 W. 63rd Street Argo 60501	458-3500
218 Community H.S.	Dr. William O. Webb 7,346	5933 W. 115th Street Worth 60482	597-6300
219 Niles	Dr. Wesley Gibbs 5,950	7700 Gross Point Road Skokie 60077	966-3800
220 Reavis	Donald Klusendorf 2,706	77th & Austin Avenue Burbank 60459	599-7200
225 Glenbrook	Dr. Forrest S. Sheely 5,001	1835 Landwehr Road Glenview 60025	PA9-2000
227 Rich	Dr. James H. Warren 4,235	Sauk Trail at Westwood Drive Park Forest 60466	748-5800
228 Bremen Community	Robert M. Wheat 6,748	15233 Pulaski Road Midlothian 60445	389-1175
229 Oak Lawn Community	Harold F. Wiltshire 2,718	9400 Southwest Highway Oak Lawn 60453	GA4-5200
230 Consolidated H.S.	Dr. Donald Peckenpaugh 6,286	111th & Roberts Road Palos Hills 60465	974-3300
231 Evergreen Park Comm.	Dr. Stephen J. Storkel 1,310	99th Street & Kedzie Avenue Evergreen Park 60642	GA4-7400
233 Homewood-Flossmoor	Edward J. Rachford 3,260	999 Kedzie Avenue Flossmoor 60422	799-3000
234 Ridgewood Community	Dr. Roger A. Kampschroer 1,264	7500 W. Montrose Avenue Norridge 60634	456-5880
401 Elmwood Park (Unit District)	Harold C. Scholle 2,771	6201 W. Fullerton Avenue Elmwood Park 60635	452-6600

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